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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,139	01/22/2004	Jen-Tong Ho	Y4P4001-D0C0020	4145

7590 11/30/2004

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EXAMINER

REESE, DAVID C

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,139

Applicant(s)

HO, JEN-TONG

Examiner

David C. Reese

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 7, 8, and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

- [1]** Claims 1-10 are pending.

Drawings

- [2]** The drawings are objected to because:

Fifth thread 15 as described within the description of the invention is not found on any of the included diagrams.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement

Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

[3] The disclosure is objected to because of the following informalities:

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: ^{pg 4,} line 19, stating, "the fifth section 55 is firstly enters into..." Also, please consider the order in which the threads and sections are discussed and labeled beginning with line 18. It may be clearer to use a more simplified approach to labeling the threads; that is, keeping the section, thread number, and screwing angle all represented by the same numerical number.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: grammatical issues, for example, "screw with a plurality of screwing angle comprising. Appropriate correction is not only required for Claim 1 but with the other Claims as well.

Claim Rejections - 35 USC § 102

[4] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[5] Claims 1-6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by anticipated by Gotoh, US-5,015,134.

Gotoh teaches of a tapping screw.

As for Claim 1, Gotoh discloses a screw with a plurality of screwing angles comprising:

a first section having a first thread with a first screwing angle (the first thread below the head of the screw, 9, in Fig. 1),

at least one third section having a second thread with a second screwing angle (section comprising 7, 8, and d2 in Fig. 1);

and a fifth section having a fifth thread with the fifth screwing angle; and the fifth thread being identical to the first thread (5' in Fig. 1);

wherein the second screwing angle is not equal to the first screwing angle (the screwing angle of 7 and 8 in Fig. 1 is not equal to the screwing angle of the first thread below the head of the screw, 9).

As for Claim 2, Re: Claim 1, Gotoh discloses a screw with a plurality of screwing angles wherein the second screwing angle is larger than the first screwing angle (the screwing angle of 7 and 8 in is larger than the screwing angle of the first thread below the head of the screw, 9).

As for Claim 3, Re: Claim 1, Gotoh discloses a screw with a plurality of screwing angles wherein the second screwing angle is smaller than the first screwing angle (since as stated above, there is at least one third section, another section, the second thread below the head of the screw, 9, can be considered another third section, and in this case, if you draw a line representing the angle of the thread, one can notice that the angle is indeed slightly less than that of the first screwing angle found above).

As for Claim 4, Re: Claim 1, Gotoh discloses a screw with a plurality of screwing angles wherein a second section is connected between the first section and the third section; the second section has a fourth thread with a fourth screwing angle (third and fourth threads down the shaft from the head of the screw in Fig. 1); a fourth section is connected between the third section and the fifth section; and the fourth section has a third thread with a third screwing angle (the section beginning two-thirds of the way down, one thread above thread 5, in Fig. 1).

As for Claim 5, Re: Claim 4, Gotoh discloses a screw with a plurality of screwing angles wherein the third screwing angle is smaller than the first screwing angle (if you draw a line tangent to the thread above thread 5, in Fig. 1, one can note that the angle is slightly smaller than the first screwing angle).

As for Claim 6, Re: Claim 4, Gotoh discloses a screw with a plurality of screwing angles wherein the fourth screwing angle is smaller than the first screwing angle (if you draw a line tangent to the third thread down from the head of the screw, in Fig. 1, one can note that the angle is slightly smaller than the first screwing angle).

As for Claim 9, Re: Claim 1, Gotoh discloses a screw with a plurality of screwing angles wherein the third screwing angle is equal to the fourth screwing angle (one thread above thread 5 is equal to the thread three down from the head of the screw in Fig. 1).

Allowable Subject Matter

[6] Claims 7, 8, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As for Claims 7, 8, and 10, the prior art does not teach of a screw possessing the distinct, but varying combination of the different thread pitches and their respective angle percentages.

Conclusion

[7] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows: Kaneko, U.S. Patent 5,882,162; Huebner, U.S. Patent 6,030,162; O'Berry, Patent App. US 2003/0059277; Vrespa, U.S. Patent, 5,259,398; Schiefer et al., U.S. Patent 5,735,653; Giet et al., U.S. Patent 6,319,254; Schule, U.S. Patent 4,778,319; Waud, U.S. Patent 3,682,507; Bailey et al., 3,966,341; Hewison, U.S. Patent 4,878,793; Koppel, U.S. Patent 5,433,570; Kawashita, U.S. Patent 4,874,278; Adamek, U.S. Patent 4,844,676; Takasaki, U.S. Patent 6,000,892;

[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (703) 305-4805. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ROBERT J. SANDY
PRIMARY EXAMINER

Sincerely,
David Reese
Assistant Examiner
Art Unit 3677